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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,360	05/10/2006	Thoi H Ho	62780A	2984
109 7590 08/20/2009 The Dow Chemical Company Intellectual Property Section P.O. Box 1967 Midland, MI 48641-1967			EXAMINER KASHNIKOW, ERIK	
			ART UNIT 1794	PAPER NUMBER
			MAIL DATE 08/20/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/579,360

Applicant(s)

HO ET AL.

Examiner

ERIK KASHNIKOV

Art Unit

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 8, 9 and 13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 8, 9 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/05/09 has been entered.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 8, 9 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schramm et al. (WO 2003/020821) in view of Saxton (US 5,032,632).

3. In regards to claims 1 and 9 Schramm et al. teach pipes formed from an interpolymer of an ethylene alpha olefin which has a density between 0.925 and 0.95 g/ccm and a melt flow index of 0.05-5.0 g/10min (page 2 lines 25- page 3 line 2 and page 4 lines 7-15). Schramm et al. further teach that the pipe composition comprise an antioxidant additive (page 12 lines 1-5).

4. In regards to claim 8 Schramm et al. teach that the ethylene alpha olefin interpolymer may be multimodal (page 12 lines 16-20).
5. As stated above Schramm et al. teach a pipe with an antioxidant added however they are silent regarding the make up of the antioxidant and the inclusion of metal deactivators and phosphorus based stabilizers.
6. Saxton teaches pipes which exhibit improved resistance to oxidative and thermal degradation as well as to gelation (column 1 lines 6-9 and 5 lines 47-53).
7. In regards to claim 1 Saxton teaches that the polymer pipe comprise a hindered phenolic antioxidant (hereinafter HPA) (column 3 lines 17-18) Saxton further teaches that one or more of the HPA can be used(column 4 lines 1-2), and gives examples of applicants first class, such as 1,3,5-trimethyl-2,4,6-tris(3,5-t-butyl-4-hydroxybenzyl)benzene (Ethanox® 330 an equivalent of Irganox® 1330) as well as Applicant's second group of HPA, such as tetrakis(methylene(3,5-di-t-butyl-4-hydroxyhydrocinnamate)methane (Irganox 1010)(column 4 lines 7-10). Saxton further teaches that the film is suitable for use as a pipe (column 5 line 51). Further since the reference is using the same HPA as Applicant's then the physical, chemical and mechanical properties of the HPA are intrinsically the same. Saxton teaches that the antioxidants are present in amounts of 0.05 to 0.5 weight percent (column 4 lines 15-18), which is equivalent to 500-5000ppm. This range presented by Saxton overlaps the presently claimed range.
8. It is also taught in regards to claim 1 that metal deactivators are metal containing chemical compounds used to stabilize liquids and to retard the formation of gummy

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residue, as such Saxton teaches using metal compounds as stabilizers (column 4 lines 19-64) as well as the overall compound being resistant to gel formation and specifically mentions using Irganox® 1024 (column 6 line 56).

9. In regards to claims 1 and 13 since Schramm et al. and Saxton et al. teach all aspects of Applicant's claim then the rest of the claimed properties would be intrinsic.

10. One of ordinary skill in the art at the time of the invention would be motivated to modify the pipe of Schramm et al. with that of Saxton et al. because the pipe of Saxton et al. offers improved resistance to oxidative and thermal degradation (column 1 lines 6-9).

Response to Arguments

11. Applicant's arguments, see arguments, filed 06/05/09, with respect to the 35 U.S.C. 112 rejections have been fully considered and are persuasive. The 112 rejections of the claims have been withdrawn.

12. In response to Applicant's arguments regarding the concentrations of the antioxidants, the rejection has been amended to show where Saxton teaches the required concentrations. One of ordinary skill in the art would be motivated to use these concentrations of these polymers in the invention of Schramm et al. for the reasons stated above.

13. While it is recognized that the phrase "consisting essentially of" narrows the scope of the claims to the specified materials and those which do not materially affect

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the basic and novel characteristics of the claimed invention, absent a clear indication of what the basic and novel characteristics are, "consisting essentially of" is construed as equivalent to "comprising". Further, the burden is on the applicant to show that the additional components in the prior art would in fact be excluded from the claims and that such ingredients would materially change the characteristics of the applicant's invention, See MPEP 2111.03.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIK KASHNIKOW whose telephone number is (571)270-3475. The examiner can normally be reached on Monday-Friday 7:30-5:00PM EST (Second Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Erik Kashnikow
Examiner
Art Unit 1794

/Rena L. Dye/
Supervisory Patent Examiner, Art Unit 1794